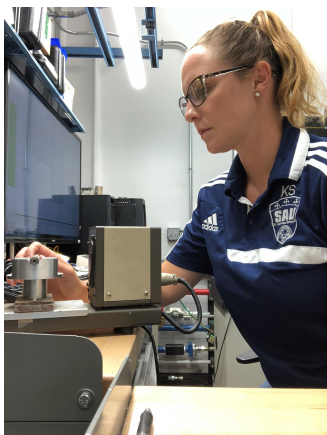


Title



Kelly Schroeder

Alg 1, Alg 2, Geometry

West High School

John Deere Accelerated Design and Verification Lab (ADV)

Part I: Overview of Business

- John Deere Accelerated Design and Verification Lab
- Proper testing is essential to ensure that products will perform in extreme environments.

Part II: Job Specifics

- Our testing processes begin with the design & development phase. Components and circuits are tested and retested at every step until the successful prototypes are built, tested, and validated.
 - Highly Accelerated Life Test (HALT)
 - Highly Accelerated Stress Screen (HASS)
 - Environmental
 - Electrical Stress
 - Shock and Vibration

Part III: Introduce the Problem

- The ADV Lab is testing welds between certain materials.
 - Welding students will weld materials together..
- Students will use dental mold to make an impression of the “T” joint weld in order to find the radius of the weld.

Part IV: Background

- Students will need to know definition of a radius and cross-section.
- Business needed to learned what material to use to make an imprint of the mold.
- <http://www.diva-portal.org/smash/get/diva2:748510/fulltext01.pdf> Page 2

Part V: Business Solution

- Still a work in progress.

Part VI: Student Solutions

- Changes in location of measurements may result in a big difference in the measured values as the weld toe radius is far from constant as shown earlier.